

CLAIMS

1. A primary battery comprising a positive electrode material of a nickel base compound using particles of a nickel oxyhydroxide base compound as a positive electrode active substance,

the particles of the nickel oxyhydroxide base compound having a surface coated with a higher oxide of cobalt and comprising zinc and cobalt separately or an eutectic crystal with zinc and cobalt,

the particles of the nickel oxyhydroxide compound having a half-width of an X-ray diffraction peak in an X-ray diffraction pattern of 0.4 to 0.48 obtained by using a $\text{CuK}\alpha$ line as an X-ray source.

2. The primary battery comprising the positive electrode material of the nickel base compound according to Claim 1, wherein the content of the cobalt higher oxide compound coated on the surface of the positive electrode active substance is 0.5% by mass or more and 20% by mass or less.

3. A primary battery comprising a positive electrode material of a nickel base compound using particles of a nickel oxyhydroxide base compound as a positive electrode active substance and zinc or an alloy of zinc as a negative electrode material,

the particles of the nickel oxyhydroxide base compound having a surface coated with a higher oxide of cobalt and comprising zinc and cobalt separately or an eutectic

crystal with zinc and cobalt,

the particles of the nickel oxyhydroxide base compound having a half-width of an X-ray diffraction peak in an X-ray diffraction pattern of 0.4 to 0.48 obtained by using a $\text{CuK}\alpha$ line as an X-ray source,

the zinc or an alloy of zinc as the negative electrode material comprising a powder with a particle diameter of 75 μm or less in the range of 10% by mass or more and 20% by mass or less.

4. The primary battery comprising the positive electrode material of the nickel base compound according to Claim 3, wherein zinc or an alloy of zinc as the negative electrode material comprises a powder with a particle diameter of 75 μm or less in the range of 10% by mass or more and 20% by mass or less.